SECURE ATTACHMENT, SELF-ESTEEM, AND OPTIMISM AS PREDICTORS OF POSITIVE BODY IMAGE IN WOMEN

A Dissertation

by

ERIN LEVERENZ SANDOVAL

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2008

Major Subject: Counseling Psychology

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Approved by:

Chair of Committee,	Michael Duffy
Committee Members,	Ludy T. Benjamin, Jr.
	Donna Davenport
	Victor Willson
Head of Department,	Michael Benz

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ABSTRACT

Secure Attachment, Self-esteem, and Optimism as Predictors of

Positive Body Image in Women. (August 2008)

Erin Leverenz Sandoval, B.A., Southwestern University; M.S., Texas A & M University

Chair of Advisory Committee: Dr. Michael Duffy

This correlational cross-sectional study investigated body image from a positive psychology viewpoint by examining variables that were predicted to contribute to positive body image in women and testing a model describing the relationships among the variables. Negative body image has been correlated with many psychological problems in the literature, but less research has examined positive body image. Some questions addressed include: Is there a relationship between secure attachment and positive body image? Do self-esteem and optimism act as intervening variables in the predicted relationship between secure attachment and positive body image?

To address these questions, data from 97 women were used in a structural equation modeling (SEM) analysis. Some of the hypotheses were supported, although the overall model was not. Secure attachment was found to be positively correlated with and predictive of self-esteem and optimism as hypothesized and in line with previous findings. Also as hypothesized, self-esteem and optimism were found to be moderately correlated. Self-esteem and optimism were not significantly related to body image in the SEM analysis and therefore the overall proposed model was not supported. In this

sample, secure attachment was found to be the greatest predictor of positive body image. Attachment accounted for 40% of the variance in body image, 44% of the variance in optimism, and 25% of the variance in self-esteem.

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The task of data collection for this research would have been more arduous without the assistance of Susan Leverenz, Tyler Leverenz, and M.J. Nene Sandoval.

My parents have been encouraging and supportive of my education for as long as I can remember; they also instilled in me a desire to help others. Without their influence and assistance at every step of the way I would never have earned this degree.

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CHAPTER I

INTRODUCTION

Many studies have looked at variables that are associated with negative body image and body image dissatisfaction in women (e.g., Cash & Pruzinsky, 2002). Negative body image is correlated with many psychological problems and is considered to be a major contributing factor to eating disorders (e.g., Cooley & Toray, 2001). Researchers have argued that the promotion of positive body image will aid in the prevention of eating-disordered behaviors (e.g., Cook-Cottone & Phelps, 2003). However, less research has focused on positive body image. Proponents of positive psychology call for psychologists to research optimal human functioning so the field can develop human strengths as well as manage weaknesses (Lopez, Snyder, & Rasmussen, 2003). This study examined one set of variables that may contribute to positive body image in women and tested a model describing the relationships among the variables. Specifically, is there a relationship between secure attachment and positive body image? Do self-esteem and optimism act as intervening variables in the predicted relationship between secure attachment and positive body image?

Adult attachment, or a person's style of interaction with others and expectations of how others will treat them, affects many aspects of life. A few studies have explored the connection between attachment and body image experiences. Attachment insecurity

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This dissertation follows the style of *Journal of Social and Clinical Psychology*.

may be associated with insecurities about physical worth and acceptability; secure attachment indicates that individuals can deal with life's challenges in a healthy way. One of these challenges for women in our society is to learn to relate to their own body in a healthy way. Preoccupied attachment styles have been found to be associated with negative body image (Cash, Theriault & Annis, 2004; Sharpe, et al., 1998; Suldo & Sandberg, 2000). One explanation is that this style represents a negative view of self and a positive view of others. In contrast, securely attached people have a positive view of both self and other. Body image may be an important part of this model of self. "Feelings about one's body may mirror one's securities and insecurities in human relationships" (Cash & Fleming, 2002, p. 283). Avoidant attachment styles, which represent a negative view of others, have not shown consistent correlations with negative body image.

Some possible intervening variables in the predicted relationship between secure attachment and positive body image may be self-esteem and optimism. A body of research has shown that self-esteem has a positive correlation with secure attachment. Self-esteem has been shown to be correlated with positive body image in a positive direction in several studies. Self-esteem and optimism are moderately correlated with each other and are both associated with psychological adjustment and well-being. However, there have been very few studies that investigated and found a positive relationship between optimism and positive body image (Williams, 2004). One study found that attachment accounted for 48% of the variance in optimism/pessimism (Heinonen, Räikkönen, Keltikangas-Järvinen, & Strandberg, 2004). To date there has

been very little research on the relationships among these four variables (body image, attachment, self-esteem and optimism).

CHAPTER II

LITERATURE REVIEW

Body Image

Body image is a multidimensional construct concerning self-perceptions, emotions, behaviors, and attitudes about one's body and physical appearance and its impact on psychological and social functioning. Body image has been described as having three core facets: evaluation, affect, and investment (Cash, 1994; Cash & Pruzinsky, 2002; Cash et al., 2004). Evaluation refers to one's satisfaction with overall physical attributes. Affect is the emotional experiences and feelings elicited by self-evaluation. Investment is the cognitive-behavioral importance of appearance and its salience to sense of self.

An extensive research literature has established significant relationships between body image attitudes and psychosocial functioning and well-being. The antecedents and correlates of body image are complex and include the developmental influences of cultural, familial, and interpersonal experiences as well as the individual's actual physical characteristics (Cash & Pruzinsky, 2002; Thompson & Smolak, 2002). Negative body image, body dissatisfaction and excessive body image investment have been shown to have adverse psychosocial and psychological consequences, including disordered eating (Cash & Deagle, 1997; Garner, 2002; Stice, 2002), depression and anxiety (Kostanski & Gullone, 1998), social anxiety and inhibition (Cash & Fleming, 2002), impaired sexual functioning (Wiederman, 2002), less satisfaction with sexual

relationships (Rieves & Cash, 1996), and poor self-esteem (Kostanski & Gullone, 1998; Powell & Hendricks, 1999). In an exploratory study of at-risk high school females, negative feelings about the body were found to be a predictor of body piercing and tattooing (Carroll & Anderson, 2002); these body modifications have been correlated with increased substance use, greater sexual activity and "risky behaviors" including fighting and shoplifting (Brooks, Woods, Knight & Shrier, 2003; Drews, Allison & Probst, 2000; Grief, Hewitt & Armstrong, 1999). Body dissatisfaction in pregnant women could affect infant outcomes and maternal health through its impact on maternal attachment, or the affiliation a mother feels for her child (Haedt & Keel, 2007).

Negative body image or body image dissatisfaction is a major contributing factor to eating disorders (e.g., Cooley & Toray, 2001; Striegel-Moore & Cachelin, 1999). Many theories, models, and a large body of literature have been created to investigate negative body image (e.g., Cash & Pruzinsky, 1990, 2002); however, the etiology of positive body image has only begun to be explored (Choate, 2005). Body image has consistently been shown to be lower in females than males in childhood, adolescence, and adulthood (Davison & McCabe, 2006; Garner & Kearney-Cooke, 1996; Kostanski & Gullone, 1998; Lowery et al., 2005); in addition, negative body image is more salient to women's sense of self and has a greater negative impact on women than men (Choate, 2005; Kostanski & Gullone, 1998, Powell & Hendricks, 1999). Women's body image quality of life is also lower than men's (Cash, Jakatdar, & Williams, 2004). For these reasons, this study focused on women.

Positive Psychology

An overwhelming majority of the previous research on body image has focused on the correlates and causes of negative body image. Multiple theoretical models have been developed over the years to conceptualize the etiology and development of negative body image (e.g., Cash & Pruzinsky, 1990, 2002; Striegel-Moore & Cachelin, 1999); only recently have a few researchers begun to develop models for positive body image (Choate, 2005). This evident disparity is likely due to psychology's traditional pathology-driven paradigm (Cash & Pruzinsky, 2002; Seligman & Csikszentmihalyi, 2003). These disease models have been helpful in contributing to intervention and treatment; similarly a new focus on positive body image could aid prevention efforts and encourage women to flourish and thrive rather than simply live. Cash and Pruzinsky (2002) argue that a "paradigm shift" to study the development and experience of positive body image is "imperative" for future body image research.

Positive psychology, which was introduced by Donald Clifton nearly 50 years ago, is now defined as the scientific pursuit of optimal human functioning and the enhancement of human strengths (Lopez & Snyder, 2003; Lopez, Snyder, & Rasmussen, 2003; Seligman & Csikszentmihalyi, 2000). Proponents of this approach strive to bring more balance to psychology and move the field away from its negative bias so that psychologists can develop human strengths as well as manage weaknesses (Clifton, 2003; Lopez, Snyder, & Rasmussen, 2003; Seligman & Csikszentmihalyi, 2000). In their call for empirical research with a positive psychology focus, Seligman and Csikszentmihalyi (2000) say their "message is to remind the field that psychology is not

just the study of pathology, weakness, and damage; it is also the study of strength and virtue. Treatment is not just fixing what is broken; it is nurturing what is best" (p. 7). Studying what makes people thrive and flourish is valuable in its own right, and may also contribute to prevention efforts (Lopez, Snyder, & Rasmussen, 2003; Seligman & Csikszentmihalyi, 2000). One current focus of research is contextualizing the examination of human strengths, healthy processes, and fulfillments (Lopez, Snyder, & Rasmussen, 2003).

Some of the strengths that positive psychology hopes to investigate further include secure adult attachment, optimism, and self-esteem (Lopez & Snyder, 2003). The manner in which many women develop positive body image is a healthy process that has received scant previous attention. This study takes a positive psychology perspective and investigates how secure adult attachment, optimism, and self-esteem may contribute to positive body image.

Attachment

Attachment theory is a framework for understanding how people organize and think about themselves, others, and, most importantly, their primary relationships. Initially developed by John Bowlby and further developed by Mary Ainsworth and others, it has been extended from its original focus on children to apply to all stages of life. Attachment theory replaces Freud's drive theory with "an ethological perspective to explain that an infant has an instinctive tendency to seek proximity and form an affectional bond- or attachment- to its caregiver, not primarily for oral needs but for the biological function of safety, protection, and reproductive success" (Sable, 2004, p. 4).

Attachment theory describes infants' proximity-seeking behavior as a biological predisposition to establish and maintain attachments that can supersede exploration or feeding, especially in times of illness, fatigue, or danger (Bowlby, 1988; Sable, 2004). For children, attachment relationships form with their primary caregivers, typically their parents.

Early relationships direct the development of the child's internal working models of self and others, which include the child's expectations about the emotional responsiveness of others and his or her own sense of self-worth (Bowlby, 1988; Whiffen & Johnson, 1998). Attachment styles describe different ways of operating in the world, specifically different cognitive-affective schemas for experiencing the self, others, and relationships, and for mediating emotion and directing behavior in the relationship (Bowlby, 1988; Pistole, 1993). Attachment style affects how people interpret interpersonal stimuli, "the nature of the emotional experiences triggered, and the memories that are retrieved" (Fonagy, 1998, p. 148). These primary patterns of attachment, developed in childhood, are postulated to translate into attachment styles, secure or insecure, occurring in adult relationships (Hazan & Shaver, 1987). M. Carole Pistole explains that "it's the central caregiving relationship (which is usually with the mother) that forms the prototype for the attachment organization with a romantic partner" (Sheperis, Hope, & Ferraez, 2004, p. 424). Most adults experience a romantic relationship as their primary attachment model, although other important relationships can be secondary attachment relationships.

Attachment continuity, or stability of attachment classification over time, has been an important and much-researched area over the past 25 years (Weinfield et al., 2004). Anderson and Alexander (1996) note that "the self-fulfilling nature of the internal working model also explains why, theoretically, patterns of attachment that develop in childhood are likely to remain into adulthood" (p.242). Other researchers point out that attachment classifications should be expected to "remain stable across development if the caregiving environment reinforces the original model, but should change if adaptation requires it" (Weinfield, Whaley, & Egeland, 2004, p. 74). One review of the attachment literature concludes that there is sufficient evidence that attachment styles maintain continuity across situations and time, and are associated with theoretically consistent psychological and interpersonal correlates to warrant the attention of researchers and clinicians (Rothbard & Shaver, 1994). One line of research (e.g., Hamilton, 2000; Lewis, Feiring, & Rosenthal, 2000; Weinfield et al., 2004) has found that attachment can be stable across the period of great development from infancy to young adulthood; however, chaotic lives and attachment-related life events are associated with changes in attachment. This was true with samples from different ethnicities, living environments, and socioeconomic backgrounds. Furthermore, changes in attachment were often found to be justifiable responses to changing environments or life events.

Some researchers theorize that attachment patterns are intergenerationally transmitted. Using three generations of family members, Benoit and Parker (1994) found evidence that a simple parent-to-child model explained transmission of attachment in a

white middle class sample of 96 mothers. Specifically, mothers' attachment during pregnancy predicted their infants' attachment at age 1. Attachment of the maternal grandmother and the infant's attachment were indirectly related through the mediator of maternal attachment.

Securely attached adults demonstrate competent functioning across many life domains and have higher quality relationships (Brennan & Shaver, 1995). They are less likely to experience psychological distress and problems (e.g., Burge at al., 1997; Mallinckrodt & Wei, 2005). A secure attachment style reflects a confident emotional attachment and is correlated with positive outcomes such as less anxiety, ability to trust in relationships, comfort with closeness to others, and a sense of self-worth (Collins & Read, 1990; Pistole, 1993). The social competencies and interpersonal processes (SCIP) model proposes that a relatively secure childhood attachment fosters the development of critical social competencies that allow individuals to obtain and maintain close, supportive relationships in adulthood (Mallinckrodt, 2000).

In their review of the recent literature, Lopez and Brennan (2000) proposed that adult attachment security could be conceptualized as a relatively enduring "self-context relation, one that optimizes both favorable self-organization and reorganization processes by promoting continuing and creative engagements with others" (p. 298). Attachment security has been related to efficient affect self-regulation (Mallinckrodt, 2000), appraising negative events as less threatening (Mikulincer & Florian, 1995), problem focused modes of coping (Mikulincer & Florian, 1998), seeking and perceiving support from friends (Bachman & Bippus, 2005; Collins & Read, 1990), having better

marital relationships (Beach, 1998), having greater trust towards others in general (Bachman & Bippus, 2005; Collins & Read, 1990), having more positive expectations of partners' behavior (Collins, 1996; Feeney, 1998), making more positive attributions of partners' behavior (Feeney, 1998), and higher self-efficacy (Cozzarelli, Sumer, & Major, 1998).

Attachment Measures. The traditional measure of attachment focused on interactions between young children and their parents. Developed by Mary Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978), the Strange Situation is still used today (e.g., Hamilton, 2000; Lewis, Feiring, & Rosenthal, 2000) to classify the attachment of 12-month-old infants. Two separations and reunions take place between the parent (usually the mother) and infant in an unfamiliar room with a female stranger present (Weinfield et al., 2004). There are four categories of responses, each associated with a letter. Avoidant (A) infants do not cry at separation, attend to toys, are unemotional, and avoid and ignore parents at reunion. Secure (B) infants show signs of missing their parents, cry at second separation, actively greet parents at reunion, and then return to play. Resistant-ambivalent (C) infants are consistently preoccupied with their parents, may be angry, passive, or seek then resist parents on reunion, and do not return to exploration after reunion but continue to cry. Disorganized (D) infants exhibit disoriented behaviors in their parents' presence such as simultaneously clinging and pulling away, or showing a trancelike expression (Main, 1996).

To measure the attachment style of adults, a variety of interview and self-report instruments have been developed from two areas of psychology. From the perspective of

developmental psychology, Mary Main (a student of Ainsworth's) and colleagues constructed the most prominent interview measure of adult attachment security which uses a four-group taxonomy (Secure/autonomous, Dismissing, Preoccupied, Unresolved/Disorganized) (Lopez, 2003). The Adult Attachment Interview was developed to assess an individual's state of mind regarding attachment, or a generalized representation of their attachment (Waters, Hamilton, & Weinfield, 2000). The hour-long semi-structured interview focuses on attachment-related experiences in childhood, such as being upset, hurt, separated, rejected, and having experienced loss, as well as the effects of these experiences on development and personality (Main, 1996). However, the length of the interview and the training required to code or interpret the results often makes it prohibitive to use in research.

Social psychologists applied attachment theory to the study of adult romantic relationships and created self-report measures of attachment. Hazan and Shaver's (1987) original instrument categorized individuals into attachment styles based on Ainsworth et al.'s (1978) three-group taxonomy (Secure, Avoidant, Anxious). Their work stimulated Bartholomew and Horowitz (1991) to develop new self-report measures and refine their taxonomy by further dividing avoidant styles (into dismissive and fearful) ultimately creating a four-group taxonomy (Secure, Dismissing, Preoccupied, Fearful) paralleling Main's four groups. Some later self-report measures utilized sets of items for each style that could be continuously rated (e.g., Collins & Read, 1990).

Dimensions of Attachment. Recent psychometric research has found support for two underlying dimensions of adult attachment (e.g., Fraley & Shaver, 2000; Sanford,

1997). The two factors or dimensions, Anxiety and Avoidance, represent fear of interpersonal abandonment or rejection and comfort with interpersonal closeness and dependency respectively (Simpson & Rholes, 1998). Low scores on the two higher order dimensions indicate attachment security (Brennan, Clark, & Shaver, 1998). Fraley and Waller (1998) used taxometric investigative methods to determine that there is no evidence of adult attachment styles representing discrete categories. They argue that attachment styles should be assessed and conceptualized dimensionally. The Experiences in Close Relationships Questionnaire -Revised (Fraley, Waller, & Brennan, 2000) was developed through a factor analysis of all previous self-report attachment scales and measures the two dimensions of Anxiety and Avoidance. After an item response theory analysis, the instrument was further refined and was found to have the best psychometric properties among the other self-report attachment scales. However, all the self-report attachment scales assess security with less precision than insecurity.

Body Image and Attachment

A body of literature has found that attachment style is related to eating disorders. Securely attached women and adolescents are less likely to exhibit disordered eating (e.g., Burge et al., 1997; Suldo & Sandberg, 2000). Sharpe et al. (1998) found that insecurely attached adolescent girls were more preoccupied with thinness and body shape. The authors suggested that insecure attachment often leads females to internalize social standards of appearance to attain self-worth and social acceptance, which then puts them at risk of developing eating disturbances. In a review of this literature, Ward, Ramsay, and Treasure (2000) found that insecure attachment is associated with eating

problems in both clinical and non-clinical populations. However, there have been few studies examining the relationship between adult attachment style and body image (Cash & Fleming, 2002).

Preoccupied attachment styles in particular have been found to be associated with negative body image (Brennan & Shaver, 1995). This style represents a negative view of self and a positive view of others. In contrast, securely attached people have a positive view of both self and other. Body image may be an important part of this model of self. In a college and community sample of women, McKinley and Randa (2005) found that attachment predicted body satisfaction. For the attachment dimension of anxiety, lower levels of anxiety were associated with greater body satisfaction. Cash, Theriault, and Annis (2004) found that secure attachment was related to body image satisfaction in a sample of male and female college students. Rosen (2005) also found a relationship between attachment and body satisfaction in a sample of Asian and White females.

Optimism

Optimism is defined as a relatively stable, generalized expectation that good outcomes will occur across important life domains. Optimism is dispositional, a very general tendency that reflects positive expectations about the future (Wrosch & Scheier, 2003). Research indicates that optimists differ from pessimists in the way they manage challenging situations. Findings suggest that optimists tend to use more problem-focused coping strategies than do pessimists; they use less avoidance and escapism than pessimists (Taylor, et al., 1992). When problem-focused coping is not a possibility, optimists turn to adaptive emotion focused coping strategies such as acceptance, use of

humor, and positive reframing (Carver, et al., 1993; Fontaine, Manstead, & Wagner, 1993; Segerstrom et al., 1998).

Optimism is prospectively associated with less depression and distress in women after an abortion (Cozzarelli, 1993; Major, Richards, Cooper, Cozzarelli, & Zubek, 1998), the birth of a child (Fontaine & Jones, 1997; Park et al, 1997), or a failed in vitro fertilization treatment (Litt et al., 1992). Five years after coronary artery bypass surgery (Scheier & Carver, 1992), male optimists continued to experience greater subjective well-being and general quality of life compared with pessimists. Twelve months after the same surgery, women who were optimists reported better mood and life satisfaction than pessimists (King, Rowe, Kimble, & Zerwic, 1998). Similar results were found with cancer patients; optimism predicted resilience one year after surgery, positive mood, lower initial distress, and fewer adjustment problems (Carver et al., 1993; Christman, 1990; Johnson, 1996).

Optimists differ from pessimists in perceptions about the quality of interpersonal interactions (Ra¨ikko¨nen et al., 1999), in self-esteem (Brissette, Scheier, & Carver, 2002; Scheier et al., 1994) and in self-efficacy (Cozzarelli, 1993). Greater optimism, assessed at the beginning of the first semester of college, was prospectively associated with smaller increases in stress and depression and greater increases in perceived social support over the course of the first semester of college. Increases in social support and greater use of positive reinterpretation and growth contributed to the superior adjustment that optimists experienced (Brissette et al., 2002).

Optimism and Body Image

There has been very little research that investigated the relationship between dispositional optimism and positive body image. However, the two studies that have been conducted indicate that there is a positive relationship between these two variables. College women with positive body image have been found to be higher in dispositional optimism than women with normative body image discontent or negative body image (Williams, 2004). Optimism has been found to be associated with higher body image quality of life in a college sample of males and females (Cash, Jakatdar, & Williams, 2004). For females in this study, body image quality of life and optimism had a correlation of .49. The authors note that this finding is consistent with evidence that optimism engenders effective coping strategies and can be a protective factor for many psychological problems.

Optimism and Attachment

Very few studies have investigated the relationship between optimism and attachment, which is surprising because optimism and secure attachment are correlated with many of the same positive psychological outcomes (Lopez & Brennan, 2000; Scheier & Carver, 1985, 1987, 1992; Scheier et al., 2001). Secure attachment and optimism are both considered to be inner resources that help a person to cope constructively with stressful experiences. Heinonen, et al. (2004) note that

> Further justification for integrating the attachment-theoretical perspective into research on dispositional optimism–pessimism, in particular, arises from the similar aspects in theoretical conceptualizations; both theories hold that prior

> experiences are encoded in the mind as generalized cognitive schemas, as internal working models manifested in the form of secure and insecure attachment styles, and as optimistic and pessimistic outcome expectancies that have roots in the theoretical model of behavioral self-regulation (p. 195).

Individuals who are securely attached believe that stressful life events are reversible, that they can cope with life problems, and they can rely on other's support, assistance, and comfort when needed. Securely attached individuals, then, are posed to develop optimistic expectations about self-regulation, other's intentions, and self-efficacy, which are the basic components of dispositional optimism. In a sample of 423 Finnish adult males and females, attachment variables were found to account for 48% of the variance in optimism/pessimism (Heinonen, et al., 2004).

Self-esteem

Self-esteem represents a global sense of self-worth and self-acceptance and is an overall emotional response to self-evaluation. Self-esteem is how much one values one's self as a person (Harter & Whitesell, 2003). An overall self-attitude that permeates all aspects of life, high self-esteem carries the implication that one will be accepted, as opposed to rejected by others (Wrosch & Scheier, 2003). Self-esteem is seen as both a relatively stable trait and a state that fluctuates around a stable baseline (Heatherton & Polivy, 1991). Women's self-esteem is primarily influenced by relationships (e.g., Josephs, Markus, & Tafarodi, 1992). A body of research has found that high self-esteem is associated with life satisfaction and psychological health (e.g., Heatherton & Wyland, 2003). One example from this body of research is a 7-year longitudinal study of

adolescents which found that high self-esteem was a protective factor for depression (Costello, Swendsen, Rose, & Dierker, 2008). Research on college women found that body shame predicted self-esteem which predicted life satisfaction; additionally, self-esteem was found to mediate the relationship between body shame and life satisfaction (Mercurio & Landry, 2008).

Self-esteem and Attachment

Within attachment theory, early relationships direct the development of the child's internal working models of self and others, which include the child's expectations about the emotional responsiveness of others and his or her own sense of self-worth (Bowlby, 1988; Whiffen & Johnson, 1998). Therefore the repeated finding of correlations between secure attachment and high self-esteem in research studies (e.g., Bartholomew & Horowitz, 1991; Collins & Read, 1990) is consistent with attachment theory. Children with secure infant attachments have been found to have higher self-esteem than those with insecure attachments (Main, 1996). Man and Hamid (1998) and Perry et al. (2008) extended this line of research across different cultures (and both genders) and continued to find a relationship between attachment and self-esteem.

Self-esteem and Body Image

Low self-esteem in women has repeatedly been found to correlate with negative body image (e.g., Heatherton & Wyland, 2003; Lowery et al., 2005). Correlations between self-esteem and body image in the literature range from .30 to .45 (Williams, 2004). For samples of adolescents and children in Australia, body dissatisfaction was negatively correlated with self-esteem (Davison & McCabe, 2006; Kostanski & Gullone,

1998). After finding similar results with a sample of college women, Cook-Cottone and Phelps (2003) suggested that enriching self-esteem should be a focus of college counseling centers' efforts to prevent eating problems. In addition, higher self-esteem has been found to be associated with higher body image quality of life in a college sample of males and females. For females in that study, body image quality of life and global self-esteem had a correlation of .61 (Cash, Jakatdar, & Williams, 2004). College women with positive body image have been found to be higher in self-esteem than women with normative body image discontent or negative body image (Williams, 2004).

Self-esteem and Optimism

Optimism and self-esteem are both associated with psychological adjustment and well-being and therefore would be expected to have some correlation with each other. Correlations between .54 and .65 have been found between the measures used in this study to measure optimism and self-esteem in women (Scheier, Carver, & Bridges, 1994) and college-age men and women (Jackson, Pratt, Hunsberger, & Pancer, 2005). These two constructs share some conceptual similarities; optimism and self-esteem both imply an expectation for positive outcomes. Wrosch and Scheier (2003) note that one difference between the two is that self-esteem implicates the self as being responsible for positive outcomes but optimism does not.

Many research studies have included both of these variables as measures of adjustment (e.g., Aspinwall & Taylor 1992; Brissette, Scheier & Carver, 2002), although their relationship is the focus of relatively few studies. In a sample of elderly Chinese individuals, self-esteem and optimism were both found to be predictors of life

satisfaction (Leung, Moneta, & McBride-Chang, 2005). In addition, optimism was seen as fostering self-esteem, relationship harmony, and positive perceptions of financial situations. Self-esteem in adolescence predicted 5-19% of the variance in dispositional optimism 21 years later in a Finnish sample (Heinonen, Ra¨ikko¨nen, & Keltikangas-Ja¨rvinen, 2005). In high school and college students, parental authoritativeness was found to predict dispositional optimism, which in turn predicted healthy adjustment (self-esteem and depression) over time. Optimism also predicted changes in self-esteem over a four year period and seems to be a mechanism by which parenting style affects adjustment outcomes. The authors suggest that parenting style and optimism and optimism and self-esteem may operate in dynamic reciprocal relationships and be mutually reinforcing (Jackson, Pratt, Hunsberger, & Pancer, 2005).

Hypotheses

This study investigates the relationships among attachment, self-esteem, optimism, and body image. Specifically, do secure attachment, self-esteem, and optimism contribute to the development of positive body image? Are self-esteem and optimism intervening variables in the relationship between secure attachment and positive body image? The hypotheses of this study will be tested using a Structural Equation Modeling (SEM) analysis. A conceptual model illustrating the predicted relationships among the variables may be seen in Figure 1. The hypotheses are as follows:

1. Secure attachment will predict a more positive body image.
2. Higher optimism will predict a more positive body image.
3. Higher self-esteem will predict a more positive body image.

4. Secure attachment will predict higher self-esteem.
5. Secure attachment will predict higher optimism.
6. Optimism and self-esteem will be moderately correlated.
7. Self-esteem and optimism will be partial mediators in the relationship between attachment and body image.

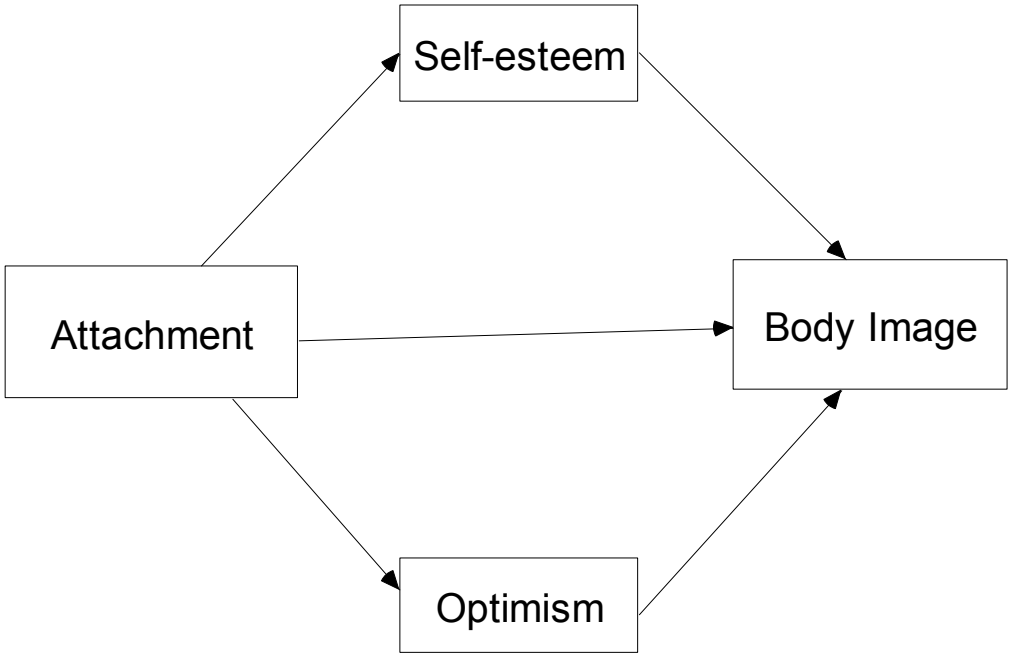

FIGURE 1. A conceptual model illustrating proposed relationships among variables.

CHAPTER III

METHODS

Participants

Participants were recruited from classes in the College of Education and Human Development at Texas A&M University in College Station, Texas, a church group and a law office in Laredo, Texas, and a group of health professionals in Waco, Texas. After a brief presentation by the researcher, women were invited to fill out a packet after the class or meeting. These groups were chosen out of convenience and in an attempt to look at the variables for a wide distribution of age. All participants signed an informed consent form.

Ninety-nine surveys were collected. However, two were not used in the analyses due to missing data (one skipped 19 items of the 38 item ECR-R; one did not answer the demographics or LOT-R). The 97 participants ranged in age from 18 to 60 with a mean of 28.67 (SD= 11.71). Reported ethnicities were 58.8% white, 30.9% Hispanic, 4.1% African-American, 2.1% mixed race, and 4.1% other. The educational level ranged from one participant who had completed the fourth-grade to several who were completing advanced degrees; 9.8% reported completing only high school, 40.2 % had completed an associate's degree or some college, 33% had been awarded a 4 year degree, and 12.3% had completed some graduate education.

Most of the women had been in a current or previous romantic relationship lasting longer than a year: 38.1% reported that their longest relationship was 5 years or

more, 37.1% 2 years or more, 8.2% at least 1 year, 9.3% 6 months to 1 year, and 6.2% less than 6 months. When asked about their current relationship status, 22.7% endorsed single, 68% reported being in a committed relationship, married, or engaged, and 9.2% were divorced, separated, or widowed.

The participants' weights ranged from 97 to 240 lbs. (M= 147.25, SD= 30.73); their heights ranged from 4'10" (58 in.) to 6' (72 in.) (M= 64.26, SD= 2.87). The average body mass index (BMI) score was 25.07 (SD= 5.04), and ranged from 17.8 to 39.1.

Measures

Body Image Quality of Life Inventory (BIQLI). The BIQLI (Cash, Jakatdar, & Williams, 2004) is a 19-item questionnaire designed to assess the influences of body image experiences on specific domains of psychosocial functioning and well-being in everyday life. Using a 7-point scale ranging from +3 to -3, participants were asked to assess the positive or negative impact of body image on various domains of their life. Internal consistency in samples of college students is high. For a male and female sample, Cronbach's alpha was .94 (Cash, Jakatdar, & Williams, 2004). For a female sample, Cronbach's alpha was .95 and the 2-3 week test-retest reliability was .79 (Cash & Fleming, 2002). Cronbach's alpha for the current study was .91.

Body Mass Index (BMI). BMI can be calculated from the equation: BMI = (Weight in kg)/(height in m^2). In this study, body mass index was calculated based on participants' self-report data. The average body mass index (BMI) score was 25.07 (SD= 5.04), and ranged from 17.8 to 39.1. US national guidelines (National Institutes of

Health, National Heart, Lung, and Blood Institute, 1998) consider a BMI over 30 to be obese; 18.1% of the sample meet this criterion. Similarly, 20.6% of the sample, with a BMI between 25 and 29.9, are considered overweight. The majority of the participants (57.7%) fell between 18.5 and 24.9 and are considered to be a normal weight. The 2.1% below 18.5 are considered to be underweight.

Experiences in Close Relationships Questionnaire-Revised (ECR-R). The ECR-R (Fraley, Waller, & Brennan, 2000) was developed through a factor analysis of all previous self-report adult attachment scales. After an item response theory analysis, the instrument was further refined and was found to have the best psychometric properties among other self-report attachment scales. The ECR-R represents all of the previous attachment instruments since it was based on previously researched items.

There are 2 scales of 18 items each, each measuring one of the dimensions of attachment, Anxiety (e.g., "I worry a lot about my relationships.") and Avoidance (e.g., "I am very comfortable being close to romantic partners."). The statements are rated on a 7-point Likert-type scale. An internal consistency of .90 to .96 was found in a community and college sample of women (McKinley & Randa, 2005). In a college freshman sample, six month test-retest reliabilities of .68 to .71 were found (Lopez & Gormley, 2002). In the current study, Cronbach's alpha was .895 for Anxiety and .923 for Avoidance.

Life Orientation Test- Revised (LOT-R). The LOT-R is a 10-item scale that measures dispositional optimism. Four are filler items and not used in scoring. Three items reflect expectations for positive outcomes and three items reflect expectations for

negative outcomes. Sample items include 'In uncertain times, I usually expect the best' or 'Overall, I expect more good things to happen to me than bad.' Most research using the LOT-R uses it to create a continuous distribution of scores, with optimists and pessimists being defined relative to one another (Wrosch & Scheier, 2003). Cronbach's alpha of .78 and test-retest reliability of .60 over 12 months and .79 over 28 months were reported (Scheier, Carver, & Bridges, 1994) An internal consistency of .82 was found in study of positive body image in women (Williams, 2004). Cronbach's alpha for the current study was .796.

Multidimensional Body-Self Relations Questionnaire- Appearance Scales (MBSRQ-AS). The MBSRQ-AS (Cash, 2000) measures attitudes and perceptions of 5 appearance-oriented aspects of body image: Appearance Evaluation, Appearance Orientation, Body Areas Satisfaction, Overweight Preoccupation, and Self-Classified Weight. The instrument consists of 34 items rated with 5-point Likert scales. The Appearance Evaluation scale measures feelings of physical attractiveness and overall satisfaction with looks. Appearance Orientation measures amount of investment in appearance, the value placed in looks, and time spent caring for appearance. Body Areas Satisfaction measures satisfaction with specific areas of one's appearance. Overweight Preoccupation measures feelings of anxiety about weight, dieting behaviors, and vigilance about weight. Self-Classified Weight indicates how participants rate their own weight and how they would expect others to rate them. Cronbach's alpha for the subscales range from .73 to .89 (Cash, 2000). In the current study, Cronbach's alpha was

.869 for Appearance Evaluation, .842 for Appearance Orientation, .831 for Body Areas Satisfaction, .748 for Overweight Preoccupation, and .821 for Self-Classified Weight.

Rosenberg Self-esteem Scale (RSES). The 10-item RSES was originally designed to measure global self-worth and self-acceptance in adolescents (Rosenberg, 1965). More recently it has become the most widely used instrument to measure self-esteem in all age groups and is seen as a highly reliable and internally consistent instrument (Gray-Little, Williams, Hancock, 1997). This global measure of self-esteem consists of 5 positively worded items (e.g., "I feel I have a number of good qualities") and 5 negatively worded items (e.g., "At times, I think I am no good at all"). Participants indicate their agreement with these items on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). This scale has displayed good validity and reliability (Crandall, 1973; Rosenberg, 1965), with coefficient alphas ranging from .60 to .88 (Gray-Little, Williams, Hancock, 1997). In a college student sample, Cronbach's alpha was .87. (Brissette, Scheier, & Carver, 2002); internal consistency was .89 in a study of positive body image in adult women (Williams, 2004). Cronbach's alpha for the current study was .900. Convergent validity has been demonstrated with other measures of self-esteem (Ellis & Taylor, 1983).

Procedures

Participants were given a packet including the RSES, LOT-R, ECR-R, BIQLI, MBSRQ-AS, and a demographic questionnaire that included questions about age, ethnicity, education level, height, weight, and marital status. An informed consent form briefly described the study, assured participants of the confidentiality of their

information, and described their right to terminate participation at any time (Appendix A). It included contact information of the author and her advisor. Participants returned their consent form separately and gave completed questionnaires to the author in sealed envelopes. The demographic questionnaire was created by the author and can be found in Appendix B.

Design

The Institutional Review Board at Texas A & M University approved this study. This descriptive, non-experimental study is correlational and uses a cross-sectional survey design. Data collection utilized a self-administered paper and pencil questionnaire. The dependent variables are body image quality of life and body image satisfaction. Attachment security, optimism, and self-esteem are the independent variables. The relationships among the independent variables were examined. Optimism and self-esteem were also investigated as possible intervening variables in the relationship between attachment and body image.

CHAPTER IV

RESULTS

Data analysis was conducted using SPSS 15.0 and AMOS 7.0. Analyses used p=.05 as the level of significance. Skewness and kurtosis of the variables were found to be within acceptable limits, as shown in Table 1 (+/- 3 standard deviations from the mean; Tabachnick & Fidell, 1996). Relationships between variables were investigated using Pearson product-moment correlation coefficients (Table 2). Age and BMI showed a moderately strong positive relationship ($r = .451$, $p < .01$), such that BMI increases with age. However, neither variable was significantly correlated with the other variables of interest. The variables of interest demonstrated small to medium correlations among themselves, ranging from .228 to .558. Each variable was significantly correlated to most of the other variables of interest. These results indicated that a formal test of the hypotheses to further investigate these relationships was justified.

A measurement model was constructed with two latent variables (Anderson & Gerbing, 1988). Attachment style was conceptualized as a latent variable composed of attachment anxiety and attachment avoidance. Both are measured along continua in the ECR-R, and lower scores on both indicate a more secure attachment style (Collins & Reed, 1990). Body image was conceptualized as a latent variable to which body image quality of life (BIQLI total score) and MBSRQ-AS Body Areas Satisfaction Scale

TABLE 1. Skewness and kurtosis of variables used in the SEM analysis

Variable	*Skewness*	*Kurtosis*
Self-esteem	-1.298	2.969
Optimism	-.825	1.697
BASS	-.083	-.707
BIQLI	-.360	-.294
Attachment avoid	.890	.775
Attachment anxiety	.047	-.792

TABLE 2. Correlations between variables

	Age	*BMI*	*Optimism*	*Self-esteem*	*Attachment Anxiety*	*Attachment Avoid*	*BIQLI*	*BASS*
Age	1	.451(**)	-.037	.083	-.164	.064	-.104	-.135
BMI		1	.031	-.117	-.039	.017	.064	-.176
Optimism			1	.540(**)	-.444(**)	-.428(**)	.364(**)	.302(**)
Self-esteem				1	-.318(**)	-.372(**)	.194	.228(*)
Attach Anxiety					1	.465(**)	-.334(**)	-.334(**)
Attach Avoid						1	-.275(**)	-.286(**)
BIQLI							1	.558(**)
BASS								1

Note. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

(BASS) contributed. Higher scores on both measures indicate more body satisfaction. An SEM evaluation of this measurement model demonstrated overall good fit (RMSEA= .000, CFI= 1.000) and the loadings of the measured variables on the latent variables were statistically significant. Therefore these latent variables appear to be adequately measured and were used in the following analyses.

An SEM evaluation of the proposed model (Figure 2) demonstrated good overall fit. However, not all the proposed paths were significant. Paths from optimism to body image and self-esteem to body image were removed because they were not significant. Based upon theory and data from the modification indices, a path between the error term for attachment avoidance and the error term for attachment anxiety was added to improve the fit of the model. These changes resulted in a very good fit for the overall model (RMSEA= .000, CFI = 1.000). BMI was added to the model, but no significant paths resulted, so it was removed. The final model can be seen in Figure 3.

The first three hypotheses concerned relationships of other variables to body image. The first hypothesis, that secure attachment would predict positive body image, was supported by the SEM evaluation (*b*= .626). The second and third hypotheses, that optimism and self-esteem would predict positive body image, were not supported. Although optimism and self-esteem were correlated with one of the variables that comprised the body image variable, the paths from optimism to body image and self-esteem to body image were not significant in the SEM analysis. The fourth hypothesis, which posited that secure attachment and self-esteem would be positively correlated, was supported (*b*=.497). Similarly, the fifth hypothesis, which posited that secure

attachment and optimism would be positively correlated, was supported (*b*=.658). The sixth hypothesis, which predicted that optimism and self-esteem will be moderately correlated, was supported (*r*= .540, p>.01). The seventh hypothesis, which predicted that self-esteem and optimism would be partial mediators in the relationship between attachment and body image, could not be tested due to the lack of significant relationships between optimism and body image and self-esteem and body image. To test for mediation, there must be significant relationships between the mediators and the outcome variable (Kenny, Kashy, & Bolger, 1998). Based upon the SEM evaluation, the seventh hypothesis was not supported because the proposed paths were not significant.

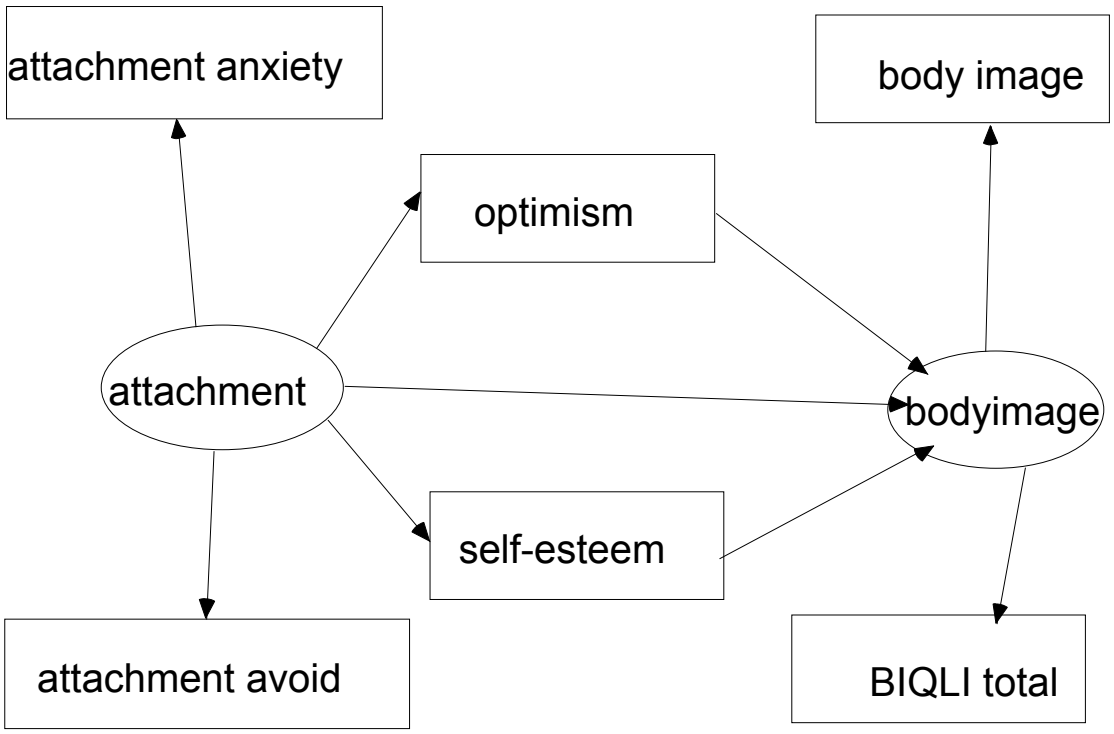

FIGURE 2. Proposed model used in initial SEM analysis.

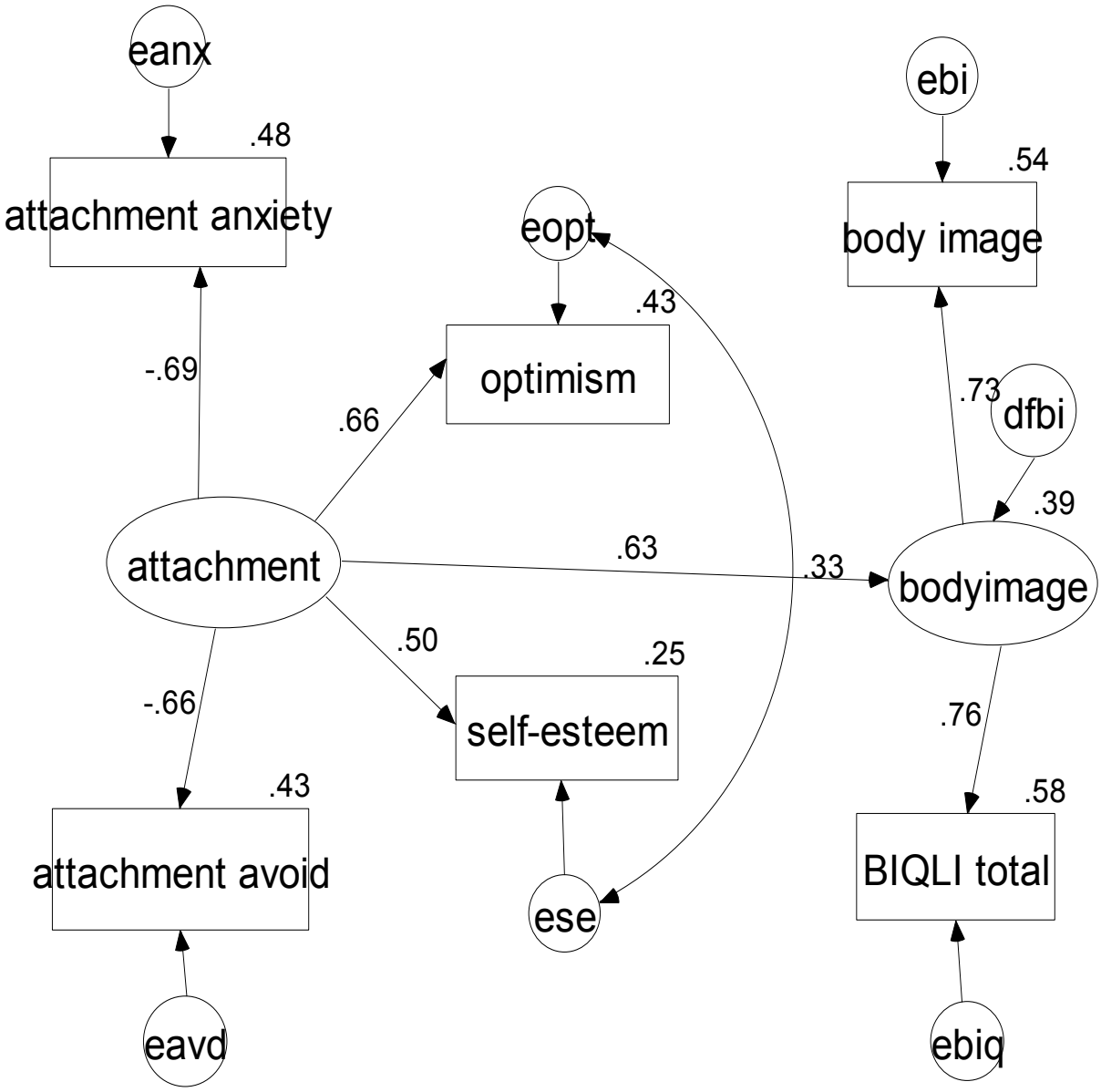

FIGURE 3. Final SEM model with best overall fit, showing standardized regression weights.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Negative body image is correlated with many psychological problems and is considered to be a major contributing factor to eating disorders (e.g., Cooley & Toray, 2001). Researchers have argued that the promotion of positive body image will aid in the prevention of eating-disordered behaviors (e.g., Cook-Cottone & Phelps, 2003). However, less research has focused on the development of positive body image. Body image researchers have advocated for further study of the development and experience of positive body image (Cash & Pruzinsky, 2002). In the spirit of positive psychology (Seligman & Csikszentmihalyi, 2000), this study aimed to further the understanding of a healthy process, the development of positive body image. This study examined one set of variables that was hypothesized to contribute to positive body image in women and tested a path model describing the relationships among the variables. It was hypothesized that self-esteem and optimism would be intervening variables in the relationship between secure attachment and positive body image. Some of the hypotheses were supported, although the overall proposed model was not supported.

The first hypothesis, which proposed that secure attachment would predict positive body image, was supported by the SEM evaluation of the data. In this sample, secure attachment style was predictive of positive body image, as hypothesized and consistent with previous research. Preoccupied attachment styles have been found to be associated with negative body image (Sharpe, et al., 1998; Suldo & Sandberg, 2000). In

a college and community sample of women, McKinley and Randa (2005) found that attachment predicted body satisfaction. Cash, Theriault, and Annis (2004) found that secure attachment was related to body image satisfaction in a sample of male and female college students. Rosen (2005) also found a relationship between attachment and body satisfaction in a sample of Asian and White females. The current study and the previous research support the idea that attachment style has a strong influence on one's sense of self, of which body image is an important part. Secure attachment indicates that individuals can successfully negotiate life's challenges, including the challenge of learning to relate to their own bodies in a healthy way in our society. In this study, secure attachment was the strongest predictor of positive body image.

The second hypothesis, which posited that greater optimism would predict a more positive body image, was not supported. Optimism was moderately correlated with body image quality of life and body areas satisfaction, which comprised the body image variable; however, in the SEM analysis, the path from optimism to body image was not significant and was removed from the model for the best fit. Therefore, in this sample, optimism was related to body image, in line with previous research (e.g., Willliams, 2003), but was not a predictor of body image as hypothesized in the model. It is unclear why the hypothesized relationship was not found; however, as others have suggested (e.g., Cash, Jakatdar, & Williams, 2004), this is an area which would benefit from more research.

The third hypothesis, which posited that higher self-esteem would predict a more positive body image, was also not supported. Although self-esteem was positively

correlated with one of the body image variables, the body areas satisfaction score, the correlation between self-esteem and body image quality of life was not significant. In the SEM analysis, the path from self-esteem to body image was not significant and was removed from the model for the best fit. The data from this sample are at odds with a body of research which has found correlations between self-esteem and body image in many groups, such as adolescents (Davison & McCabe, 2006) and college-age females (Cook-Cottone & Phelps, 2003). The kurtosis for self-esteem in the current sample is close to the limit of acceptability, and it is possible that this affected the results.

The fourth hypothesis, which posited that secure attachment would predict higher self-esteem, was supported. Both dimensions of attachment were moderately correlated with self-esteem and attachment security predicted self-esteem in the SEM analysis. This relationship is consistent with past research (e.g., Bartholomew & Horowitz, 1991). Foster, Kernis, and Goldman (2007) replicated these findings and also found that the stability of self-esteem, or how often it fluctuates over time, is related to attachment anxiety. They suggest that those with high attachment anxiety who also have unstable self-esteem would be more likely to exhibit relationship-based emotional lability, that "the dynamics of attachment anxiety and stability of self-esteem are highly intertwined and that they likely have reciprocal influences upon each other" (p. 69).

If components of attachment style and self-esteem (attachment anxiety and self-esteem stability) are interrelated and have reciprocal effects on each other, it is possible that these two variables were not adequately teased apart and that this contributed to the lack of a significant relationship between self-esteem and body image in the SEM

analysis. Also, self-esteem stability was not measured; this variable could have been a possible confound that affected both self-esteem and attachment but was not accounted for in the hypothesized model.

The fifth hypothesis, which predicted that secure attachment would predict higher optimism, was supported. Optimism was moderately correlated with both dimensions of attachment; in addition, attachment security predicted optimism in the SEM analysis. This finding has previously been theoretically inferred and replicates the empirical findings of Heinonen et al., (2004), who noted the scarcity of research on the interaction between these two variables.

The sixth hypothesis, which predicted that optimism and self-esteem will be moderately correlated, was supported. These two variables are often used as markers of psychological adjustment and conceptually both imply an expectation for positive outcomes. This result is consistent with past research that has found moderate correlations between these variables (e.g., Jackson, Pratt, Hunsberger, & Pancer, 2005).

The seventh hypothesis, which predicted that self-esteem and optimism would be partial mediators in the relationship between attachment and body image, could not be tested due to the lack of significant relationships between optimism and body image and self-esteem and body image. To test for mediation, there must be significant relationships between the mediators and the outcome variable (Kenny, Kashy, & Bolger, 1998). The SEM analysis did not provide support for the final hypothesis.

Although age and BMI were positively correlated, BMI was not significantly related to other variables. From the previous research, it was expected that BMI would

have been correlated with body image; for example, Cash, Jakatdar, and Williams (2004) found that body image quality of life was lower in women with a higher BMI. The results involving BMI in this study may be less robust than expected because BMI was calculated from self-reported height and weight. Participants may have inadvertently or purposely reported biased estimates of their height and/or weight.

In summary, secure attachment was found to be positively correlated with and predictive of self-esteem and optimism, as predicted and in line with previous findings. Also as hypothesized, self-esteem and optimism were found to be moderately correlated. Self-esteem and optimism were not significantly related to body image in the SEM analysis, and therefore the overall proposed model was not supported. In this sample, secure attachment was found to be the greatest predictor of positive body image.

Although all measures used in this study showed acceptable validity and reliability, utilizing different measures of these variables may help future researchers further the field's understanding of the development of positive body image. For example, an interview measure of attachment is considered by some to give the most accurate representation of attachment style. Other researchers advocate using a self-report measure in conjunction with behavioral observations or unconscious priming techniques to gain a more thorough understanding of "attachment-related unconscious processes" (Shaver & Mikulincer, 2002; p. 137). Similarly, collecting data on height and weight from self-report may have resulted in biased estimates of these variables; an objective measurement of these variables by a researcher or assistant would reduce bias and measurement error.

A limitation of this study was the relatively small sample size. The sample was one of convenience and was not randomly selected. In addition, all the participants were currently living in the same state and approximately one third of them attended the same university; therefore the results may not generalize to all populations. Future researchers may benefit from collecting data from a larger and more representative sample. Another limitation of this study is its use of cross-sectional data to model a developmental process. Causality can only be evaluated using a longitudinal design, not through the methods of the current study. Longitudinal research designs would be an ideal way to examine the development and trajectory of positive body image.

Future research may benefit from using interview measures of attachment and taking objective measurements of height and weight to reduce measurement error and further elucidate the relationships between these variables. Use of a larger and more representative sample and longitudinal or prospective design are also recommended. A prospective design would allow for a greater understanding of the development of body satisfaction over time.

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APPENDIX A

INFORMED CONSENT FORM

CONSENT FORM
Secure Attachment, Self-Esteem and Optimism in Relation to
Positive Body Image in Women

You have been asked to participate in a research study which will examine the relationships among how women feel about themselves, others, and their relationships. A total of one hundred to one hundred and fifty women will be asked to participate in this study. This study is part of research being done by the principal investigator to complete a dissertation in the Counseling Psychology program at Texas A&M University. The purpose of this study is to gather information which will contribute to the knowledge base about how to promote psychological well-being in women.

If you agree to be in this study, you will be asked to complete five survey instruments. This study will take approximately 20 to 30 minutes of your time. The risks associated with this study are a possibility of emotional discomfort triggered by some of the questions. The benefits of participation are that participants may engage in self-reflection, which can lead to personal growth or insight. There is no monetary compensation for participating in this study.

The study is confidential. Consent forms will not be associated with the other data collected. The records of this study will be kept private. No identifiers linking you to the study will be included in any sort of report that might be published. Research records will be stored securely and only Erin Sandoval and Dr. Michael Duffy will have access to the records. Your decision whether or not to participate will not affect your current or future relations with Texas A&M University. If you decide to participate, you are free to refuse to answer any of the questions that make you uncomfortable. You can withdraw at any time without your relations with the University, job, benefits, etc., being affected. You can contact Erin Sandoval at erinlev@tamu.edu or (979) 595-1772 or Dr. Michael Duffy at (979) 845-1848 with any questions about this study.

This research study has been reviewed by the Institutional Review Board- Human Subjects in Research at Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

Please be sure you have read the above information, asked questions, and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in the study.

Signature of Participant: _____ Date: _____

APPENDIX B

DEMOGRAPHICS FORM

Demographics Form

Age: _____

Gender: _____

Ethnicity/Race: _____

Educational Background (e.g., degrees earned, years of school or college): _____
_____

What is your longest long-term romantic relationship?

a) Less than 6 months
b) 6 months to 1 year
c) More than 1 year
d) 2 years or more
e) 5 years or more

Are you currently:

a) Single, not in a relationship
b) In a committed relationship
c) Engaged
d) Married
e) Divorced/separated
f) Widowed

How much do you currently weigh (in pounds)? _____

How tall are you (in feet and inches)? _____

VITA

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